

*Fig.1*

A	B	C	D	E	F	G
Piston ring			Damage mode 1: Wear and tear			
	Duration	Unit	Acceleration factor	Equiv. km	No. of repetitions	Total equiv. km
Endurance runs on test stands						
Nominal output tests	500	h	5.1	140,250	4	561,000
Thermal shock test	300	h	2.9	47,850	4	191,400
Changing load test	1,000	h	5.9	324,500	4	1,298,000
Piston and cylinder head breakage test	500	h	3.5	96,250	4	385,000
.....
Vehicle endurance runs						
Motorway test	100,000	km	1.3	200,000	4	800,000
City cycle	50,000	km	1	50,000	4	200,000
High-speed test	50,000	km	3.5	175,000	4	700,000
Customer test	150,000	km	1	150,000	15	2,250,000
.....
			Max.:	324,500	Sum:	6,385,400

Fig. 2

A	B	C	D	E	F	G	H	I
Load Matrix Summary Sheet	Degree of change	Load	Risk	Sum total of equivalence km	Reliability after 2 years	Service life risk after [km]	Verifiable reliability	Reliability from running tests
Component/ Damage Mode								
Piston ring/wear	1	2	2	6,385,400	0.99990	324,500	0.989969	1.00000
Cylinder head/ Breakage of valve cross-piece	2	2	4	4,774,000	0.9990	198,200	0.986605	1.00000
Cylinder head / seat ring wear	2	2	4	5,230,000	0.99990	160,600	0.987766	1.00000
Connector/ frictional corrosion	2	1	2	11,942,000	0.9995	250,600	0.994624	1.00000
...

Fig. 3